

FAX TRANSMITTAL SHEET

TO: Phil Page
LOCATION: CNSC
FAX #: _____ PHONE #: _____

FROM: Mc Cutcheon
LOCATION: Lab
FAX #: _____ PHONE #: 236-3881

10/10/90


1 PAGES FOLLOW

cc sent to Gary Spelching



R00329932
RCRA RECORDS CENTER

POTENTIAL Criminal Action

INCIDENT NOTIFICATION REPORT		1. Regional Case Number:	
 EPA REGION VII		2. Reported (mm/dd/yy): 09/09/90 09, 1990	
		3. Time (HH/MM): 0205	
		4. Recorded By: Kuzner	
		5. <input checked="" type="checkbox"/> Through NRC	
		6. NRC Case Number: 42016	
A. REPORTER	(b) (7)(C)		
B. DISCHARGER			
C. INCIDENT LOCATION			
D. DATE			
E. MATERIAL			
F. SOURCE	20. <input type="checkbox"/> As Above in A If B Applies 21. <input type="checkbox"/> Private Company 22. <input type="checkbox"/> Public 23. <input type="checkbox"/> Local 24. <input type="checkbox"/> State 25. <input type="checkbox"/> Federal 26. Discharger Name: <u>Industrial Services Corp</u> 27. Address: <u>Maes St.</u> 28. City: <u>Kansas City</u> 29. County: <u>Texas</u> 30. State: <u>Mo.</u> 31. Zip: <u></u> 32. Phone: <u>()</u> 33. <input type="checkbox"/> As Above in B 34. Street or Approx. Location: <u>Q. Industrial Services Corp.</u> 35. City: <u>Kansas City</u> 36. County: <u>Texas</u> 37. State: <u>Mo.</u> 38. Zip: <u></u> 39. Spill Date (mm/dd/yy): <u>09-09-1990</u> 40. Spill Time: <u>2000</u>		
G. MEDIA	41. <input checked="" type="checkbox"/> Material 42. <input type="checkbox"/> Material Type: O=Oil CHRIS UN/ DOT No. GAS No. Quantity Released Units > RQ Type Unknown H=Hazardous Material X=Other Code 43. Material Name 1: 44. 45. 46. 47. 48. 49. <input type="checkbox"/> 50. Material Name 2: 51. 52. 53. 54. 55. 56. <input type="checkbox"/> 57. Material Name 3: 58. 59. 60. 61. 62. 63. <input type="checkbox"/>		
H. CAUSE	Source of Spill: 64. <input type="checkbox"/> Highway 65. <input type="checkbox"/> Railway 66. <input type="checkbox"/> Pipeline 70. <input checked="" type="checkbox"/> Fixed Facility 72. <input type="checkbox"/> Unknown 67. <input type="checkbox"/> Air Transport 68. <input type="checkbox"/> Vessel 69. <input type="checkbox"/> UST 71. <input type="checkbox"/> Offshore 73. Vehicle ID or Carrier No.: 74. Description: Medium Affected: 75. <input type="checkbox"/> Air 76. <input type="checkbox"/> Land 77. <input type="checkbox"/> Water 78. <input type="checkbox"/> Groundwater 79. <input type="checkbox"/> Within Facility Only 80. Waterway:		
I. DAMAGE	Reported Cause: 81. <input type="checkbox"/> Transportation Accident 83. <input type="checkbox"/> Operational Error 85. <input checked="" type="checkbox"/> Dumping 97. <input type="checkbox"/> Other 82. <input type="checkbox"/> Equipment Failure 84. <input type="checkbox"/> Natural Phenomenon 86. <input type="checkbox"/> Unknown 88. Description: <u>RESERVED STATES HE ASSURANCE COMPANY ORANGE DUMPING IN KERN AT PLANT & COVERED OVER WITH PAPER KRAVE BY COLLECTED EQUIPMENT</u>		
J. ACTIONS	Damages: 89. No. of Injuries 90. No. of Deaths 91. <input type="checkbox"/> Property Damage > \$50,000 92. <input type="checkbox"/> Evacuation 93. Response Action Taken:		
K. NOTIFIED	Caller Has Notified: 94. <input type="checkbox"/> State/Local 95. <input type="checkbox"/> Discharger 96. <input type="checkbox"/> USCG 97. <input type="checkbox"/> Other 98. <input type="checkbox"/> Unknown 99. Agency Name: <u>EPA ONLY</u>		
L. COMMENTS	100. Comments: <u>EXPENSE HUND DUE TO POTENTIAL FOR CRIMINAL ACTION.</u> 101. Comments: 102. Comments: 103. <input type="checkbox"/> Additional Information		
M. RESPONSE & EVALUATION	Responding Agency Codes: S=State L=Local D=Discharger F=Federal E=EPA O=Other U=Unknown 104. Agency Name: 105. <input type="checkbox"/> Responding Agency Code 106. Agency Name: 107. <input type="checkbox"/> Responding Agency Code 108. Agency Name: 109. <input type="checkbox"/> Responding Agency Code 110-112. Response Comments: 113. <input type="checkbox"/> Case Status Code (O=Open, C=Closed)		



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
25 FUNSTON ROAD
KANSAS CITY, KANSAS 66115

November 26, 1990

MEMORANDUM

SUBJECT: Industrial Services Corporation Investigation
Sample Summary, Activity #AKX01

FROM: Mike Michalowski
OSC, SINV/EP&R/ENSV

TO: Paul Doherty
Chief, SINV/EP&R/ENSV

BACKGROUND

On October 17, 1990, the Emergency Planning and Response Branch and the Ecology and Environment, Inc./Technical Assistance Team (E&E/TAT) assisted in the investigation of a possible illegal substance discharge that occurred near Industrial Services Corporation (ISC), 1633 Marsh Street, Kansas City, Missouri. The investigation was conducted at the request of the Region VII Environmental Protection Agency (EPA) Office of Criminal Investigations.

Five surface-soil samples were taken within a drainage ditch and a grassy knoll down-gradient of ISC. Three samples (#001, #002, and #003) were taken from within the drainage ditch that is adjacent to the east shoulder of Marsh Street where recent grading work was done as was evident by the bare, disturbed soil and fresh equipment tracks. Sample #005 was taken from two 10-inch pipes found approximately 50 feet east of sample point #003. Sample #004 was collected as a background sample. A detailed description of the samples and sample points are listed in Appendix A, E&E/TAT Site Assessment Trip Report.

SAMPLE SUMMARY

All sample analytical work was conducted by the EPA Region VII Environmental Services Division (ENSV) Laboratory, Kansas City, Kansas. The analyses performed by the ENSV Laboratory were for polychlorinated biphenyls (PCBs), total metals, volatile organics, and a gas chromatograph/mass spectrometer scan. The complete data transmittal package is attached in Appendix B for a detailed analysis on each sample.

Samples #001, #002, #003, and #004 did not show any measurable levels of PCBs, but a low concentration of PCB (160 parts per billion) was detected in sample #005. PCB concentrations of less than 50 parts per million (ppm) do not necessarily require cleanup according to EPA Region VII, Toxic Substance Control Section/Toxics and Pesticides Branch; nonetheless, all spills containing PCBs should be properly reported until the PCB concentration is determined.

Moderate levels of toluene (1.2 to 3.7 ppm), ethyl benzene (1.3 to 3.1 ppm), and total xylenes (14.0 to 32.0 ppm) were detected in samples #003 and #005, respectively. These readings indicate a strong co-relationship between the stained ditch soil (#003) to the dark, odorous soil taken from the 10-inch pipes (#005). Other volatile organic compounds, although below detection limits, were also found in similar concentrations between samples #003 and #005. Low levels of total xylenes (0.22 to 0.36 ppm) and ethyl benzene (0.01 to 0.37 ppm) were found in samples #001 and #002, respectively. This indicates that the volatile organics migrated down-gradient in the drainage ditch and collected when runoff, resulting from the rains that occurred on October 8, 1990, had pooled (possibly as backwash from clogged or restricted drainage flow).

Xylene, toluene, and ethyl benzene are listed as Resource Conservation and Recovery Act hazardous wastes under 40 CFR, Part 261.31. Xylene and ethyl benzene are spent, nonhalogenated solvent wastes (F003). Toluene is also listed as a spent, nonhalogenated solvent but classified as an F005 waste.

Heavy metals were not detected in any significant levels in any of the soil samples. Lead concentrations of 150 mg/kg were detected in sample #005. Samples #001, #002, and #003 were below background (71 mg/kg) for lead. Trace lead concentrations commonly found in natural soils range from 2 to 200 ppm with the average at 10 ppm (REF: USEPA Office of Solid Waste and Emergency Response, HAZARDOUS WASTE LAND TREATMENT, SW-874: 04/83, page 273, Table 6.46).

Attachments

cc: Ellis Cannady, CRIM

APPENDIX A

INDUSTRIAL SERVICES CORPORATION INVESTIGATION
SITE ASSESSMENT TRIP REPORT



ecology and environment, inc.

4 CLOVERLEAF BUILDING 3, 6405 METCALF, OVERLAND PARK, KANSAS 66202, TEL. 913/432 9961

International Specialists in the Environment

MEMORANDUM

TO: Paul Doherty, EPA/DPO

FROM: Tim Tarwater, E & E/TATM-77

THRU: Joe Chandler, E & E/TATL

DATE: October 31, 1990

SUBJECT: Site Assessment Trip Report: Industrial Service Corp.,
Kansas City, Missouri
TDD# T07-9010-061
PAN# EM00922SAA

INCIDENT

The Ecology and Environment, Inc., Technical Assistance Team (TAT) was tasked by EPA/OSC Michalowski under TDD# T07-9010-061 to respond to an alleged illegal substance discharge into a drainage ditch at Industrial Service Corp. (ISC) 1633 S. Marsh Ave., Kansas City, Missouri. The EPA received an anonymous phone call on the spill line on October 8, 1990, at 2200 hours reporting that a black tanker truck dumped a load of black liquid on the ground at ISC. The caller alleged that after dumping the load, a back hoe covered the liquid with soil. The call was referred to the EPA office of Criminal Investigations which, in turn, requested TAT's assistance in an initial site investigation.

TAT member Tarwater, OSC Michalowski, and Ellis Cannady, Office of EPA Criminal Investigations met at the site at 0900 hours on October 17, 1990.

RESPONSE

On October 17, 1990, at 0900 hours TATM Tarwater and OSC Michalowski met Ellis Cannady and William Hare EPA Office of Criminal Investigations on site. According to the report obtained by the Office of Criminal Investigations, the discharge took place just north of the facility on the east side of Marsh Avenue. The ditch appeared to have been graded over and the soil disturbed at various spots, patches of soil appeared to be stained black.

At 0910 hours, the criminal investigators, TAT, and the OSC met Tim Roache, ISC's facility manager. The criminal investigators interviewed Roache concerning the events that allegedly took place on October 8, 1990, at 2200 hours. Roache claimed that to his knowledge no discharge had taken place. He added that his employees were grading the ditch on October 8, 1990, for flood control purposes. A complete report pertaining to the content of the interview was submitted by Ellis Cannady. Roache granted EPA and TAT permission to investigate and sample, after he had made a phone call. He requested split samples of any samples collected.

The OSC and TAT decided to collect several surface soil samples in area where the soil was observed to be stained. Table summarizing the samples collected is provided below. The table includes sample location, numbers, time of collection, OVA headspace reading, and sample containers used.

TABLE 1
Sample Summary
Industrial Service Corp.
Kansas City, Missouri

SAMPLE #	TIME OF COLLECTION	LOCATION	OVA READING (ppm)	CONTAINER
1	1025 hours	2 feet south of culvert in drainage ditch	2.2	8-ounce glass jar
2	1037 hours	3 feet north of culvert in drainage ditch	3.2	8-ounce glass jar
3	1050 hours	50 feet north of culvert in drainage ditch	9.5	8-ounce glass jar
*4	1110 hours	150 feet north of culvert and 50 feet east of Marsh	**1.8	8-ounce glass jar
5	1130 hours	excavated drainage pipes located in the open field 50 feet east of Marsh Ave.	11.0	8-ounce glass jar

* Sample #4 was collected as a background sample

** OVA background reading = 1.8 ppm

Samples 1 through 4 were single aliquot grab samples collected from a depth of zero to six inches. Sample 5 was collected by taking one aliquot from the soil plugs inside each end of two excavated drainage pipes. All samples were collected by TAT in level C protection with a split sample from each location given to Roache, as requested. All soil

samples were collected with stainless steel spoons and homogenized in an aluminum pie pan prior to transfer to the sample container.

At 1245 hours, the criminal investigators, TAT and the OSC departed from the site. TAT and the OSC delivered the samples to EPA Region VII's laboratory for analysis. Requested analysis included: total petroleum hydrocarbons, TCLP metals (lead), and a general GC/MS scan (including PCB's). Results from the analysis will be included in the OSC's report.

SUMMARY

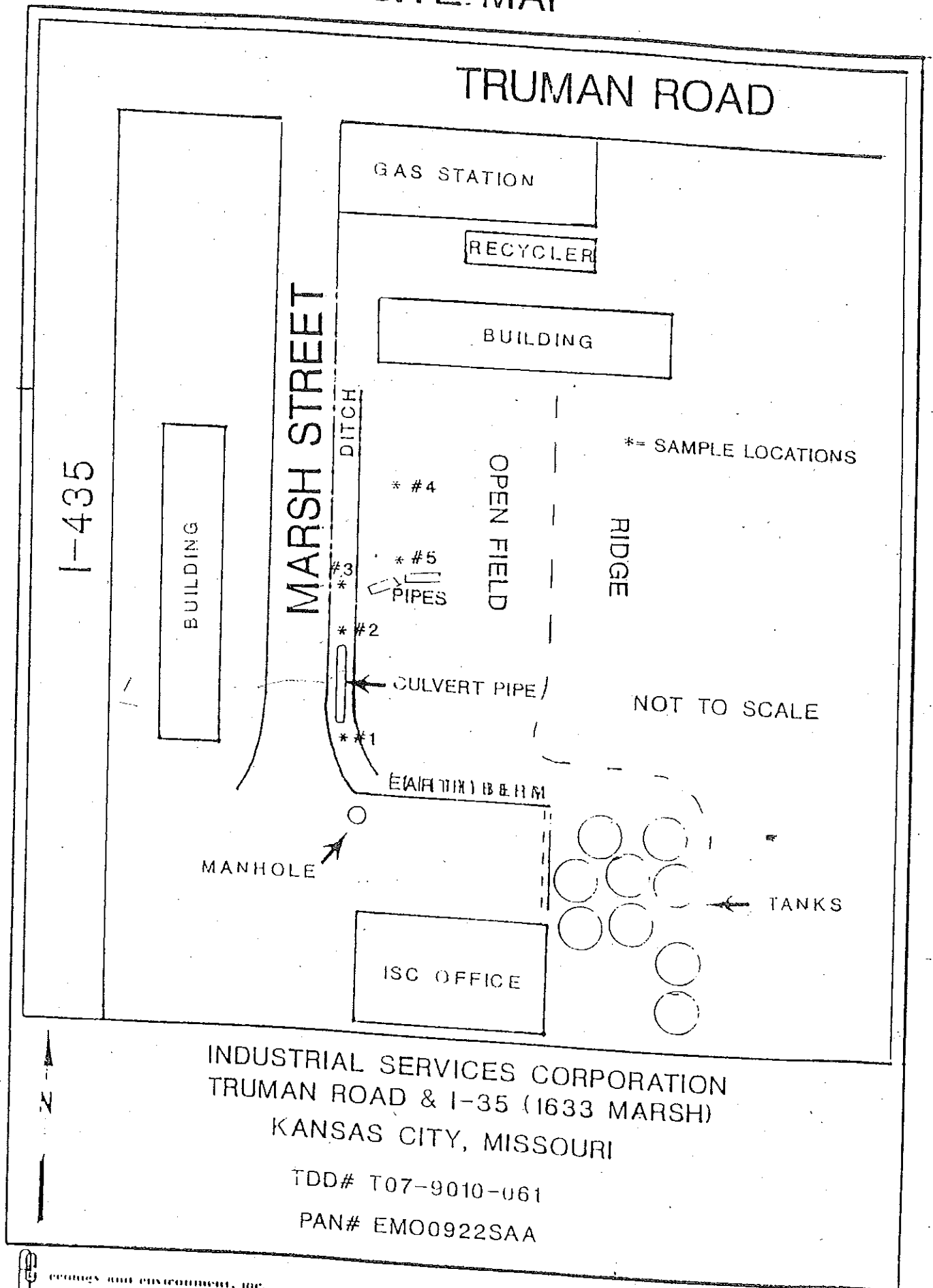
TAT was tasked by EPA/OSC Michalowski and the EPA Office of Criminal Investigations under TDD# T07-9010-061 to assist with conducting a site assessment in response to an alleged illegal substance discharge into a drainage ditch at Industrial Service Corp., Kansas City, Missouri. The EPA criminal investigators interviewed the facility's manager. Samples were collected from several areas along the ditch where the soil appeared to be stained black. Split samples were provided to ISC. The samples were submitted to the EPA Region VII laboratory for analysis.

ATTACHMENTS

Site Location Map
Site Sketch Map

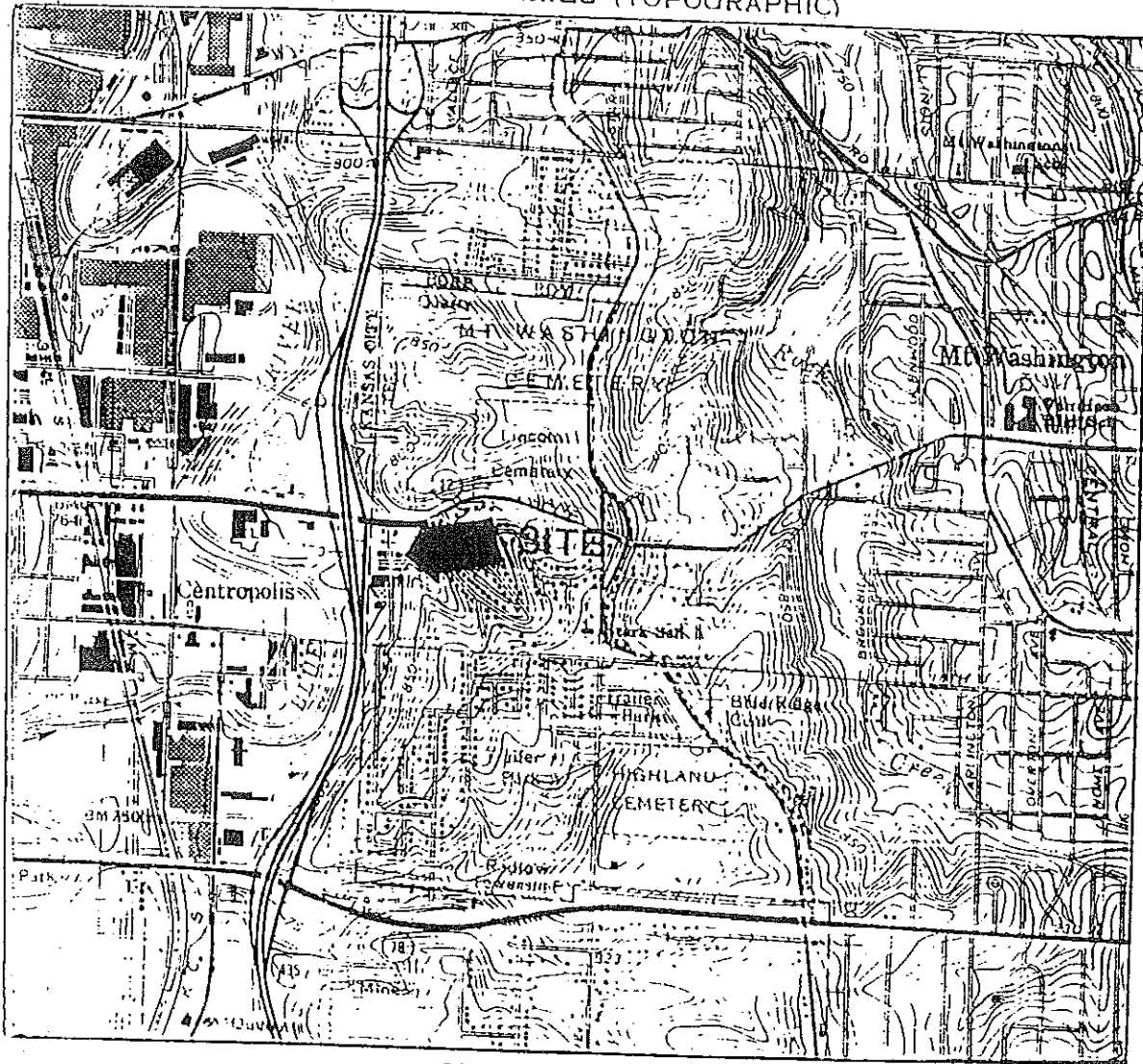
jh

SITE MAP

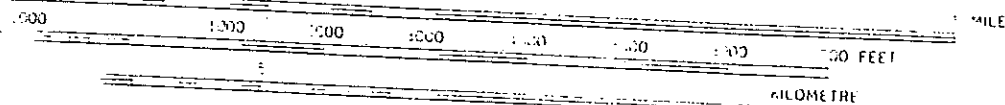


SITE LOCATION MAP

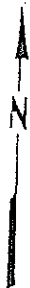
INDEPENDENCE QUADRANGLE
MISSOURI
7.5 MINUTE SERIES (TOPOGRAPHIC)



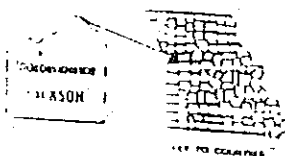
SCALE 1:24,000



CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



MAP LOCATION



INDUSTRIAL SERVICES CORPORATION
TRUMAN ROAD & I-35 (1633 MARSH)

KANSAS CITY, MISSOURI

TDD# T07-9010-061

PAN# EMO0922SAA



CHERRY HILL CONSULTING, INC.
11. COUNCIL PARK, KANSAS

APPENDIX B

INDUSTRIAL SERVICES CORPORATION INVESTIGATION
DATA TRANSMITTAL FOR ACTIVITY #AKX01



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7
25 LINCOLN ROAD
KANSAS CITY, KANSAS 66115

Date: NOV 15 1990

MEMORANDUM

SUBJECT: Data Transmittal for Activity #: AKX01
Site Description: Industrial Service Corp (ISC)

FROM: Andrea Jirka A. Brunell for AJ
Chief, Laboratory Branch, ENSV

TO: John R. Helvig
Acting Chief, Emergency Planning and Response Branch, ENSV

ATTN: M. Michalowski

Attached is the data transmittal for the above referenced site. These data have met all quality assurance requirements unless indicated otherwise in the data package. This should be considered a Partial or X Complete data transmittal (completes transmittal of). If you have any questions or comments, please contact Dee Simmons at 236-3881.

Attachments

cc: Data File

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

EY: 91 ACTING: AKXJ1 SAMPLING: 001 QCC: MEDIA: SOIL PL: MICHALOWSKI, M.

ACTIVITY ORS: INDUSTRIAL SERVICE CORP(ISC) REF LATITUDE:
LOCATION: MO PROJECT NUM: A30 PT: LONGITUDE:

SAMPLE ORS: INDUSTRIAL SERVICES CORP. DATE TIME FROM REF PT
LOCATION: KANSAS CITY MO SEG: 10/17/90 10:25 EAST:
CASE/BATCH/SNC: / / LAB: END: / / : NORTH:
STOREY/SAROAD NO: DOWN:

ANALYSIS REQUESTED:

CONTAINER	COLOR	PRESERVATIVE	MGP	NAME
GLASS	LIME	NONE	SV	VOLATILES
GLASS	WHITE	ICED	SM	METALS
GLASS	BLUE	ICED	S10	PCB'S - G. BEEMONT
GLASS	PURPLE	ICED	SG06	GCMS SCAN

COMMENTS:
2' SOUTH OF CULVERT

SAMPLE COLLECTED BY : _____

SLAFT

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY: 91 ACTNO: AKX01 SAMNO: 002 QCC: _ MEDIA: SOIL PL: MICHALOWSKI, M.

ACTIVITY DES: INDUSTRIAL SERVICE CORP(ISC)

LOCATION: _____ REF LATITUDE: _____

PROJECT NUM: 430 PT: LONGITUDE: _____

SAMPLE DES: INDUSTRIAL SERVICES CORP.

LOCATION: KANSAS CITY

CASE/BATCH/SEC: _____/_____/_____

STORET/SAMPLE NO: _____

HU

LAB: _____

DATE TIME FROM REF PT

BEG: 10/17/90 10:37 EAST: _____

END: ____/____/____ NORTH: _____

DOWN: _____

ANALYSIS REQUESTED:

CONTAINER

COLOR

PRESERVATIVE

MGP

NAME

GLASS

LIME

NONE

SV

VOLATILES

GLASS

WHITE

ICED

SM

METALS

GLASS

BLUE

ICED

S16

PCB'S - G. DEEMONT

GLASS

PURPLE

ICED

SG06

GCMS SCAN

COMMENTS:

3' NORTH OF CULVERT

SAMPLE COLLECTED _____

0011

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY: 91 ACTNO: AKX01 SAMNO: 003 QCC: _ MEDIA: SOIL PL: MICHALOWSKI, M.

ACTIVITY DES: INDUSTRIAL SERVICE CORP (ISC)

REF LATITUDE: _ _

LOCATION: _ _

MO

PROJECT NUM: A30

PT: LONGITUDE: _ _

SAMPLE DES: INDUSTRIAL SERVICES CORP.

LOCATION: KANSAS CITY

MO

DATE

TIME

FROM REF PT

CASE/BATCH/SMC: _ _ / _ _

LAB: _ _

BEG: 10/17/90

10:50

EAST: _ _

END: _ _ / _ _ / _ _

NORTH: _ _

DOWN: _ _

ANALYSTS REQUESTED:

CONTAINER

COLOR

PRESERVATIVE

MGP

NAME

GLASS

LIME

NONE

SV

VOLATILES

GLASS

WHITE

ICED

SM

METALS

GLASS

BLUE

ICED

S16

PCB'S - G. BEEMONT

GLASS

PURPLE

ICED

SG06

GCMS SCAN

COMMENTS:

50' NORTH OF CULVERT

SAMPLE COLLECTED BY: _ _

00000

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY: 91 ACTNO: AKX01 SAMNO: 004 QCC: - MEDIA: SOIL PL: MICHALOWSKI, M.

ACTIVITY DES: INDUSTRIAL SERVICE CORP(ISC)

LOCATION: - - - - - NO PROJECT NUM: A30 REF LATITUDE: - - - - -
PT: LONGITUDE: - - - - -

SAMPLE DES: INDUSTRIAL SERVICES CORP.

LOCATION: KANSAS CITY

CASE/BATCH/SNO: - - - - -

STORET/SAKAD NO: - - - - -

NO

LAB: - - - - -

DATE TIME FROM REF PT
BEG: 10/17/90 11:10 EAST: - - - - -
END: - - - - - NORTH: - - - - -
DOWN: - - - - -

ANALYSIS REQUESTED:

CONTAINER

COLOR

PRESERVATIVE

MGP

NAME

GLASS

LINE

NONE

SV

VOLATILES

GLASS

WHITE

ICED

SM

METALS

GLASS

BLUE

ICED

S10

PCB'S - G. BEEMONT

GLASS

PURPLE

ICED

SG06

GCMS SCAN

COMMENTS:

150' NORTH OF CULVERT

SAMPLE COLLECTED BY : - - - - -

00101

FIELD SHEET

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

FY: 91 ACTNO: AKX01 SAMNO: 005 QCC: _ MEDIA: SOIL PL: NICHALOWSKI, M.

ACTIVITY QCS: INDUSTRIAL SERVICE CORP(ISC)

LOCATION: _____ MO PROJECT NUM: A30 REF LATITUDE: _____

PT: LONGITUDE: _____

SAMPLE QCS: INDUSTRIAL SERVICES CORP.

LOCATION: KANSAS CITY

CASE/BATCH/QMO: _____

STORET/SARNO NO: _____

MO

LAB: _____

DATE TIME FROM REF PT

BEG: 10/17/90 11:30 EAST: _____

END: ____/____/____ NORTH: _____

DOWN: _____

ANALYSIS REQUESTED:

CONTAINER

COLOR

PRESERVATIVE

MGP

NAME

GLASS

LIME

NONE

SV

VOLATILES

GLASS

WHITE

ICED

SM

METALS

GLASS

BLUE

ICED

S16

PCB'S - G. BEEMONT

GLASS

PURPLE

ICED

SG06

GCMS SCAN

COMMENTS:

SOIL FROM EXCAVATED DRAIN

SAMPLE COLLECTED Y: _____

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: Central Industries Corp.
Location: 1633 MARSH K.C., MO.

Site Number: _____
Site Code: _____

Collected: YR: 82 MO: 10 Day: 17 Time: 10:25 Leader: TARLWATER

Sample Number: 1

SMO #: _____

Sample Media (circle one):

SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container: Tag Color: Preservative: Analysis Requested:

802 TAR

NONE

FID-Hydrocarbons

Depth: 0-6"

Pan #: _____

Aliquots: _____

Samplers: Tarwater

COMMENTS OF FIELD PERSONNEL

Site Description: 2' SOUTH OF CULVERT

GVA - 2.2 ppm

0-6" DEPTH

FIELD SHEET
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: Continental Industries Corp. Site Number: _____
Location: 1633 MARSH KC, MO Site Code: _____

Collected: YR: 98 MO: 12 Day: 17 Time: 1837 Leader: T. Swartz

Sample Number: 2 SMO #: _____

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container: Tag Color: Preservative: Analysis Requested:

8 OZ. JAR

N/A

Depth: 0-6"

Pan #: _____

Aliquots: _____

Samplers: T. Swartz

COMMENTS OF FIELD PERSONNEL

Site Description: 3' north of culvert
East side of marsh

OVA 3.2 ppm

0-6" DEPTH

FIELD SHEET
U. S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: Industrial Process Corp. Site Number: _____
Location: 1633 HARSH KC, MO. Site Code: _____

Collected: YR: 92 MO: 12 Day: 17 Time: 12:58 Leader: Turwater

Sample Number: 3 SMO #: _____

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container : Tag Color : Preservative : Analysis Requested :

2.5 LIT

N/A

Depth: 4-6"

Par #: _____

Aliquots: _____

Samplers: Turwater

COMMENTS OF FIELD PERSONNEL

Site Description: 50' north of Culvert
East side of marsh

QVA - 9.5 ppm

4-6" DEPTH

FIELD SHEET
U. S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: *Andrews Blvd construction site* Site Number: _____
Location: *1633 Marsh, KC, MO* Site Code: _____

Collected: YR: *78* MO: *12* Day: *17* Time: *1118* Leader: *T. W. W. W.*

Sample Number: *4*

SMO #: _____

Sample Media (circle one):

SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container: Tag Color: Preservative: Analysis Requested:

802 TAR

N/A

Depth: *0-6"*

Par #: _____

Aliquots: _____

Samplers: *T. W. W. W.*

COMMENTS OF FIELD PERSONNEL

Site Description: *154' north of culvert - 54' east of marsh*

OVA = 1 ppm = background reading

0-6" DEPTH

FIELD SHEET
U. S. ENVIRONMENTAL PROTECTION AGENCY, REGION VII
ENVIRONMENTAL SERVICES DIV. 25 FUNSTON RD. KANSAS CITY, KS 66115

Site Name: Industrial Services Corp. Site Number: _____
Location: 1133 MARSH KC MO Site Code: _____

Collected: YR: 98 MO: 12 Day: 17 Time: 1130 Leader: Terrell

Sample Number: 5 SMO #: _____

Sample Media (circle one):
SOIL, DUST, RINSATE, SEDIMENT, WATER, OTHER: _____

Sample Split (circle one): YES NO

Sample Container : Tag Color : Preservative : Analysis Requested :

8 OZ JAR

N/A

Depth: N/A

Par #: _____

Aliquots: 4

Samplers: Terrell

COMMENTS OF FIELD PERSONNEL

Site Description: soil from excavated
drainage pipes located in
open field 50' east of marsh
1 aliquot from each end of both
pipes

17 10/22/40

7-EPA-9262(Revised 5/85)

ICF Technology Incorporated
NSI Technology Services Corporation

EPA Region VII Laboratory
25 Funston Rd.
Kansas City, Kansas 66115
(913) 236-3881

To: Michael Thomas
Chief, Analytical Services Section, LABO/ENSV

APPROVED
M Thomas
11/05/90

Through: Harold Brown, Ph.D.
Deputy Project Officer for Region VII ESAT, EPA

From: Kevin Ludwikoski
Scientist, ESAT

K
J

Through: Ron Ross
Region VII ESAT Team Leader, NSI-TSC-ES

Date: 11/5/90

Subject: Case narrative and assignment completion.

Report:.....Industrial Services
TID #:.....07-9009-506
ICF Acct. #:.....302-26-506-01
NSI Sales Order:.....4634-0506
EPA Activity #:.....AKX01
ESAT Document Control #:.....ESAT-VII-506-0009

ESAT was assigned five soil samples for total metals from Industrial Services. The samples were digested using Method 4401S70, and analyzed on ICAP using Method 6010 or by GFAA using Method 7000.

Calibrations

All initial and continuing calibrations met Region VII guidelines for total metals.

Matrix Spike/Matrix Spike Duplicate

The matrix spike and matrix spike duplicate recoveries for total metals met Region VII guidelines except for Antimony.

Method Standard

The method standard recoveries for total metals met Region VII guidelines.

ICF TECHNOLOGY INCORPORATED
NSI TECHNOLOGY SERVICES CORPORATION

U. S. EPA, Region VII
25 Funston Rd.
Kansas City, KS 66115
(913) 236-3881

TO: Bob Greenall
Chief, ORGN, LABO/ENSV

FROM: Mark T. Whitmire *MTW*
Senior Chemist, Region VII ESAT, NSI-ES

-THRU: Harold Brown
Chief, CLQA Section, LABO/ENSV

THRU: Ronald A. Ross
Manager, Region VII ESAT Team

DATE: November 2, 1990

SUBJECT: TID Report - Industrial Services
TID# 07-9009-501
ICF ACCT.# 26-501-01
NSI Sales Order # 4634-0501
EPA Activity # AKX01
ESAT Document Control ESAT VII-501-0004

Five soil samples with the associated QA/QC were submitted with a request for analysis of extractable organics by GC/MS. The samples were extracted and analyzed according to EPA Region VII standard operating procedures for BNAs except that, because of the strong odor of fuel, ten grams of soil was extracted for each sample instead of the prescribed thirty grams. High concentrations of unresolved non target compounds appear in the chromatograms, in a pattern characteristic of a complex blend of high boiling compounds.

1. Holding Times: The holding times for extraction and analysis were within Region VII guidelines for the analysis of BNAs.
2. Instrument Performance: All of the requirements for DFTPP ion abundances were met.
3. Initial Calibration: The Region VII percent RSD and minimum RRF requirements were met for the calibration of September 6, 1990.

4. Continuing Calibration: The minimum RRF requirements were met for all compounds except for 4-Nitrophenol. The percent difference requirements were not met for 4-Chloroaniline, 3-Nitroaniline, 4-Nitrophenol, and Pentachlorophenol. Results for 4-Nitrophenol are coded as unusable.

5. Internal Standards: Reportable levels of compounds associated with internal standards not passing minimum area and retention time criteria were coded 'J'.

6. Method Blanks: The laboratory prepared blank (AKX01 900M) showed acceptable surrogate recovery and no contamination.

7. Quality Control: Recovery of all surrogates was high and within acceptable limits. Surrogate recoveries could not be calculated for AKX01 005 because of the high dilution required for analysis. The matrix spike and matrix spike duplicate showed acceptable recovery and good agreement. A quality control sample prepared from USEPA solutions (GC/MS acids, WP 881 Sample 1; GC/MS base neutrals, WP 482 Sample 3) spiked into blank soil showed good recovery.

8. Summary: The data package has been submitted and the data sheets are attached to this memo. This activity is now complete, please contact me if you have any questions.

ICF Technology Incorporated
NSI Technology Services Corporation
25 Funston Rd.
Kansas City, KS 66115

TO: Robert Greenall
Chief, ORGN, LABO/ENSV

FROM: Louis Tollackson ✓
ESAT

-THRU: Ron Ross
Region VII ESAT Team Leader, NSI-TSC-ES

THRU: Harold Brown, Ph.D.
Deputy Project Officer for Region VII ESAT, EPA

DATE: October 29, 1990

SUBJECT: Case Narrative - Industrial Services

TID #: 07-9009-504
ICF Acct. #: 501-26-504-01
NSI Sales Order #: 1073-5041
EPA Activity #: AKX01
ESAT Document Control #: .. ESAT-VII-504-0001

Five soil samples were received by ESAT on 10/23/90 for the analysis of PCB's. The samples were extracted on 10/24/90, and they were analyzed on 10/26/90 by GC/EC. The method used for the analysis was EPA CSO288A. A sample AKX01005 was positive for PCB AR 1260.

Holding Time

There is no holding time for PCB's in soil.

Initial and Continuing Calibration

Quantitation of the sample results were done by linear regression analysis of three different standard concentrations. A calibration check standard was used to determine the continuing calibration of the analysis.

Method Blank

A method blank AKX01900M was analyzed. The blank was negative.

Matrix Spike and Method Standard

A matrix spike was analyzed for this activity. The spike was for PCB's (AR 1254). A method standard was also analyzed (AR 1254). The matrix spike was calculated at 37% recovery while the method standard was 76%. The particular soil type analyzed was a heavy moist clay type which explains the difference in extraction recoveries as clay samples normally retain pesticides and PCB's to a greater extent than other soil types.

Surrogate Recoveries

DCB was used as a surrogate for the extraction procedure. The DCB recoveries could not be calculated because the soil extracts were acid washed prior to GC analysis. The reason for the acid wash was the dirty oily appearance of the extracts after column extraction. DCB is degraded by acid washing.

Calculations

Calculations were done on the second analysis run of soil extracts. The first run was compromised by a power failure which caused the detectors to shut down. The detectors were not stabilized during the analysis. Dilutions for the second run were based on the best estimate from the first run. One sample AKX01004 was outside the calibration curve.

Results and Discussion

Five soil samples from Industrial Services were analyzed for PCB's. The samples were positive for AR 1260, but only one AKX-01005 was reported above the detection limit set for the analysis (See data sheets). Because of matrix soil problems the soil extracts were acid washed. A facility power failure during analysis caused a sample calculation problem because of lower detector sensitivity during detector recovery. This resulted in a sample, AKX01004, not being diluted enough to stay within the calibration range for the second sample run. The project is finished. If you have any questions, contract ESAT.

ICF Technology Incorporated
NSI Technology Services Corporation

EPA Region VII Laboratory
25 Funston Rd.
Kansas City, KS 66115
(913) 236-3881

To: Robert Greenall
Chief, ORGN, LABO, Region VII EPA

From: Janet K. Muse *JM*
Senior Scientist, ESAT

Thru: Ronald A. Ross
Region VII ESAT Team Leader, NSI-TS

Thru: Harold Brown, Ph.D.
Deputy Project Officer, Region VII ESAT, EPA

Date: October 29, 1990

Subject: Case Narrative and Data Review Document, IND. SERVICES

TID #: 07-9009-505
ICF Acct. #: 302-26-505-01
NSI Sales Order : 4634-0505
EPA Activity #: AKX01
ESAT Document Control #: ESAT-VII-0505-0003

Five soil samples were received by ESAT on 10/23/90 for analysis of volatile organic compounds. Seven day turnaround was requested.

Holding Times

Soil: There are no established holding times for volatile compounds in soil samples.

GC/MS performance

All Region VII GC/MS performance criteria were met for a 50 nanogram injection of 4-bromofluorobenzene.

Method Blank

Volatile method blanks were analyzed along with the soil samples. Positive hits for target compounds in the blanks were only reported positive in the sample after the blank rule was applied. That is, positive hits for methylene chloride, acetone, and 2-butanone in the samples were reported and coded with a "U" unless they were greater than 10-times the level in the daily blank. A 5-times rule was applied for all other target compounds found in the method blanks.

A high level of acetone contamination was found in method blank AKX01900M. No data was qualified due to this.

Initial Calibration

A five-point initial calibration, 20 - 200 ug/L, was done before samples were analyzed. Response factors were greater than 0.05 for all compounds, except 2-butanone and the relative percent difference of 30% for response factors was met for all analytes, except for acetone, 4-methyl-2-pentanone, and 2-hexanone. No data needed qualification due to these outliers.

Continuing Calibration

- The percent difference for response factors was less than 25% for all compounds, except for bromoform, 4-methyl-2-pentanone, and 2-hexanone on the continuing calibration of 10/26/90. No data needed qualification due to these outliers.

Surrogate Recoveries

Recoveries for surrogates in the soil samples were within the established Region VII guidelines.

Internal Standard Areas

Areas for the internal standards were within the control limits established for this analysis, except for samples AKX01002 and AKX01002D. Tetrachloroethene was J-coded due to this in sample AKX01002 and toluene and ethylbenzene were also J-coded in sample AKX01002D because the internal standards in the sample were outside control limits. Quantitations for other positive hits in these samples were taken from the dilutions of these samples in which the internal standards were within control limits and the data needed no qualification.

Matrix Spike/Matrix Spike Duplicate

Spike recoveries were within normal limits in the soil matrix spike and matrix spike duplicate, except for high recoveries for methylene chloride in both matrix spike and matrix spike duplicate and high recoveries for 2-hexanone in the matrix spike. This is probably due to some contamination in the purge and trap.

Performance Evaluation Sample

A performance evaluation sample was analyzed with the samples, AKX01900P. All compounds were in general agreement with known analytes and quantitations for all compounds.

Discussion

1,1,1-trichloroethane and toluene were determined in sample AKX01002 but at quantitations less than the detection limits for these compounds. The same was true for AKX01002D. Sample AKX01005 also contained 1,1,1-trichloroethane and tetrachloroethene at levels less than the detection limit for a dilution of 1:125. No further analysis was done on this sample due to the large quantities of other compounds in this sample.

Detection limits and quantitations for positive hits were adjusted for dilutions and the quantity of sample weighed out for analysis.

No moisture determinations were done on these soil samples, so all data is reported on a wet weight basis.

— Summary

This analysis is now complete with data sheets attached.
If you have any questions concerning this analysis, contact me.

TENTATIVELY IDENTIFIED COMPOUNDS

TITLE: IND. SERVICES - AKX01
 LAB: ESAT
 ANALYST/ENTRY: JKM
 REVIEW LEVEL: 2 *JKM*

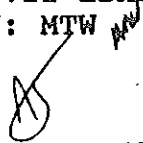
MATRIX: SEDIMENT
 METHOD: 5411S70
 REVIEWER: _____
 DATA FILE : AKX

UNITS: UG/
 CASE: N/A
 DATE: 10/3

SAMPLE NO.	COMPOUND NAME	FRACTION	EST. CONCENTRAT
AKX01002	AROMATIC HYDROCARBON	VOA	30
AKX01002D 001 <i>JKM</i>	NOTHING SIGNIFICANT FOUND	VOA	
AKX01003	UNKNOWN ALIPHATIC HYDROCARBON	VOA	6
AKX01004	NOTHING SIGNIFICANT FOUND	VOA	
AKX01005	UNKNOWN ALIPHATIC HYDROCARBON	VOA	7

- * THIS IS A CRUDE ESTIMATION BASED ON RESPONSE RELATIVE TO AN INTERNAL STANDARD. AN AUTHENTIC STANDARD HAS NOT BEEN RUN.
- ** THE COMPOUNDS WERE IDENTIFIED USING A LIBRARY SEARCH ROUTINE. AUTHENTIC STANDARDS HAVE NOT BEEN ANALYZED TO VERIFY COMPOUND MASS SPECTRA AND RETENTION TIMES.

TENTATIVELY IDENTIFIED COMPOUNDS

TITLE: INDUSTRIAL SERVICES
LAB: EPA RGN VII ESAT
ANALYST/ENTRY: MTW
REVIEW LEVEL: 

MATRIX: SEDIMENT
METHOD: 625S
REVIEWER: _____
DATA FILE : M42

UNITS: PERCENT
CASE: AKX01
DATE: 11/01/9

SAMPLE NO.	COMPOUND NAME	FRACTION	EST. CONCENTRATION
AKX01001	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J
AKX01002	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J
AKX01003	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J
AKX01004	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J
AKX01005	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J

- * THIS IS A CRUDE ESTIMATION BASED ON RESPONSE RELATIVE TO AN INTERNAL STANDARD. AN AUTHENTIC STANDARD HAS NOT BEEN RUN.
- ** THE COMPOUNDS WERE IDENTIFIED USING A LIBRARY SEARCH ROUTINE. AUTHENTIC STANDARDS HAVE NOT BEEN ANALYZED TO VERIFY COMPOUND MASS SPECTRA AND RETENTION TIMES.

REPORT DATE : 11/15/90

PAGE : 1 OF 2

DATA QUALITY REPORT FOR ACTIVITY 1AKX01

= NO QC FILE
*** = INSUFFICIENT DATA

(1) EXPRESSED AS THE MEAN RELATIVE STANDARD DEVIATION
(2) EXPRESSED AS PERCENT OF SPIKE RECOVERY

MGP NUM	PARAMETER DESCRIPTION	UNITS	TOTAL METHOD DETECTION LIMIT	QC USED	TOTAL (1) METHOD PRECISION	QC USED	TOTAL (2) METHOD ACCURACY	QC USED
SG06	GCMS SCAN	UG/KG	###		###		###	
SM01	SILVER BY ICAP	MG/KG	6.59	(M)	15.5	(.D)	###	
SM02	ALUMINUM BY ICAP	MG/KG	64.2	(M)	24.2	(.D)	###	
SM03	ARSENIC BY ICAP	MG/KG	23.8	(M)	188	(.D)	105	(R.S. B.W)
SM04	BARIUM BY ICAP	MG/KG	3.30	(M)	59.1	(.D)	92.6	(R.S. B.W)
SM05	BERYLLIUM BY ICAP	MG/KG	0.704	(M)	26.2	(.D)	108	(R.S. B.W)
SM06	CADMIUM BY ICAP	MG/KG	4.86	(M)	59.1	(.D)	###	
SM07	COBALT BY ICAP	MG/KG	4.61	(M)	27.5	(.D)	94.9	(R.S. B.W)
SM08	CHROMIUM BY ICAP	MG/KG	10.9	(M)	29.4	(.D)	98.2	(R.S. B.W)
SM09	COPPER BY ICAP	MG/KG	13.4	(M)	20.7	(.D)	100	(R.S. B.W)
SM10	IRON BY ICAP	MG/KG	134	(M)	53.1	(.D)	93.4	(R.S. B.W)
SM11	MANGANESE BY ICAP	MG/KG	1.97	(M)	14.0	(.D)	99.9	(R.S. B.W)
SM12	MOLYBDENUM BY ICAP	MG/KG	6.89	(M)	11.8	(.D)	96.5	(R.S. B.W)
SM13	NICKEL BY ICAP	MG/KG	9.15	(M)	146	(.D)	102	(R.S. B.W)
SM14	LEAD BY ICAP	MG/KG	195	(M)	60.6	(.D)	99.1	(R.S. B.W)
SM15	ANTIMONY BY ICAP	MG/KG	14.9	(M)	98.1	(.D)	89.3	(R.S. B.W)
SM16	SELENIUM BY ICAP	MG/KG	38.8	(M)	###		###	
SM17	TITANIUM BY ICAP	MG/KG	###		###		###	
SM18	THALLIUM BY ICAP	MG/KG	331	(M)	###		###	
SM19	VANADIUM BY ICAP	MG/KG	8.21	(M)	16.0	(.D)	104	(R.S. B.W)
SM20	ZINC BY ICAP	MG/KG	96.5	(M)	23.6	(.D)	94.9	(R.S. B.W)
SM21	CALCIUM BY ICAP	MG/KG	47.3	(M)	28.4	(.D)	99.9	(R.S. B.W)
SM22	MAGNESIUM BY ICAP	MG/KG	47.4	(M)	22.2	(.D)	101	(R.S. B.W)
SM23	SODIUM BY ICAP	MG/KG	47.3	(M)	7.31	(.D)	105	(R.S. B.W)
SM24	POTASSIUM BY ICAP	MG/KG	47.4	(M)	9.67	(.D)	94.6	(R.S. B.W)
SP17	PCB-1016	UG/KG	***		###		###	
SP18	PCB-1221	UG/KG	***		###		###	
SP19	PCB-1232	UG/KG	***		###		###	
SP20	PCB-1242	UG/KG	***		###		###	
SP21	PCB-1248	UG/KG	***		###		###	
SP22	PCB-1254	UG/KG	***		###		###	
SP23	PCB-1260	UG/KG	***		###		###	
SV03	CHLOROMETHANE	UG/KG	***		***		***	
SV04	BROMOMETHANE	UG/KG	***		***		***	
SV05	VINYL CHLORIDE	UG/KG	***		***		***	
SV06	CHLOROETHANE	UG/KG	***		***		***	
SV07	METHYLENE CHLORIDE	UG/KG	***		***		***	
SV08	1,1-DICHLOROETHYLENE	UG/KG	***		***		***	
SV09	1,1-DICHLOROETHANE	UG/KG	***		***		***	
SV10	TRANS-1,2-DICHLOROETHYLENE	UG/KG	***		***		***	
SV11	CHLOROFORM	UG/KG	***		***		***	
SV12	1,2-DICHLOROETHANE	UG/KG	***		***		***	
SV13	1,1,1-TRICHLOROETHANE	UG/KG	***		***		***	
SV14	CARBON TETRACHLORIDE	UG/KG	***		***		***	
SV15	BROMODICHLOROMETHANE	UG/KG	***		***		***	
SV16	1,2-DICHLOROPROPANE	UG/KG	***		***		***	
SV17	BENZENE	UG/KG	***		***		***	

REPORT DATE : 11/15/90

DATA QUALITY REPORT I

FOR ACTIVITY 1AKX01

PAGE : 2 OF 2

= NO QC FILE
 *** = INSUFFICIENT DATA

(1) EXPRESSED AS THE MEAN RELATIVE STANDARD DEVIATION
 (2) EXPRESSED AS PERCENT OF SPIKE RECOVERY

MGP NUM	PARAMETER DESCRIPTION	UNITS	TOTAL METHOD DETECTION LIMIT	QC USED	TOTAL (1) METHOD PRECISION	QC USED	TOTAL (2) METHOD ACCURACY	QC USED
SV18	TRANS-1,3-DICHLOROPROPENE	UG/KG	***		***		***	
SV19	TRICHLOROETHYLENE	UG/KG	***		***		***	
SV20	CIS-1,3-DICHLOROPROPENE	UG/KG	***		***		***	
SV21	DIBROMOCHLOROMETHANE	UG/KG	***		***		***	
SV22	1,1,2-TRICHLOROETHANE	UG/KG	***		***		***	
SV24	BROMOFORM	UG/KG	***		***		***	
SV25	1,1,2,2-TETRACHLOROETHENE	UG/KG	***		***		***	
SV26	TOLUENE	UG/KG	***		***		***	
SV27	1,1,2,2-TETRACHLOROETHANE	UG/KG	***		***		***	
SV28	CHLOROBENZENE	UG/KG	***		***		***	
SV29	ETHYL BENZENE	UG/KG	***		***		***	
SV30	ACETONE	UG/KG	***		***		***	
SV31	CARBON DISULFIDE	UG/KG	***		***		***	
SV32	2-BUTANONE	UG/KG	***		***		***	
SV33	VINYL ACETATE	UG/KG	***		***		***	
SV34	2-HEXANONE	UG/KG	***		***		***	
SV35	4-METHYL-2-PENTANONE	UG/KG	***		***		***	
SV36	STYRENE	UG/KG	***		***		***	
SV37	XYLENES, TOTAL	UG/KG	***		***		***	
ZZ01	SAMPLE NUMBER	UG/KG	***		***		***	
7702	ACTIVITY CODE	NA	###		###		###	
		NA	###		###		###	

*** END OF REPORT ***

ANALYSIS REQUEST REPORT

PRELIMINARY DATA
SUBJECT TO REVISION

FOR ACTIVITY: AKX01

MICHALOWSKI, M.

11/15/90 12:01:23

* LABO APPROVED

FY: 91 ACTIVITY: AKX01 DESCRIPTION: INDUSTRIAL SERVICE CORP(ISC) LOCATION: MISSOURI
 STATUS: ACTIVE TYPE: NON-SAMPLING PROJECT: A30

LABO DUE DATE IS 10/29/90. REPORT DUE DATE IS 10/30/90.

INSPECTION DATE: 10/22/90 ALL DATA APPROVED BY LABO DATE: 11/15/90 FINAL REPORT TRANSMITTED DATE: 00/00/00

EXPECTED LABO TURNAROUND TIME IS 7 DAYS EXPECTED REPORT TURNAROUND TIME IS 8 DAYS

ACTUAL LABO TURNAROUND TIME IS 24 DAYS ACTUAL REPORT TURNAROUND TIME IS 0 DAYS

SAMP. NO.	OCC	M	DESCRIPTION	SAMPLE #	STATUS	CONT.	CITY	STATE	STORET/ SARCAD LOC NO	BEG. DATE	BEG. TIME	END. DATE	END. TIME
001		S	INDUSTRIAL SERVICES CORP.	1	4	KANSAS CITY	MISSOURI			10/17/90	10:25	/ /	:
001	B	S	SPIKE DUPLICATE TRUE VALUE	0	0		MISSOURI			/ /	:	/ /	:
001	L	S	SAMPLE DUPLICATE	0	0		MISSOURI			/ /	:	/ /	:
001	S	S	SPIKE TRUE VALUE	0	0		MISSOURI			/ /	:	/ /	:
001	S	S	SPIKE	0	0		MISSOURI			/ /	:	/ /	:
001	W	S	SPIKE DUPLICATE	0	0		MISSOURI			/ /	:	/ /	:
002		S	INDUSTRIAL SERVICES CORP.	1	4	KANSAS CITY	MISSOURI			10/17/90	10:37	/ /	:
003		S	INDUSTRIAL SERVICES CORP.	1	4	KANSAS CITY	MISSOURI			10/17/90	10:50	/ /	:
004		S	INDUSTRIAL SERVICES CORP.	1	4	KANSAS CITY	MISSOURI			10/17/90	11:10	/ /	:
005		S	INDUSTRIAL SERVICES CORP.	1	4	KANSAS CITY	MISSOURI			10/17/90	11:30	/ /	:
900	P	S	LCS	0	0		MISSOURI			/ /	:	/ /	:
900	T	S	LCS TRUE VALUE	0	0		MISSOURI			/ /	:	/ /	:
901	G	S	METHOD STANDARD	0	0		MISSOURI			/ /	:	/ /	:
901	H	S	METHOD STANDARD TRUE VALUE	0	0		MISSOURI			/ /	:	/ /	:
902	M	S	BLANK	0	0		MISSOURI			/ /	:	/ /	:

TABLE OF CODES

PRELIMINARY DATA SUBJECT TO REVISION

SAMP. NO. = SAMPLE IDENTIFICATION NUMBER
 OCC = QUALITY CONTROL SAMPLE/AUDIT CODE
 M = MEDIA OF SAMPLE (A=AIR, T=TISSUE, H=HAZARDOUS MATERIAL, S=SEDIMENT/SOIL, W=WATER)
 STORET/SAROAD LOC. NO. = A SAMPLING SITE LOCATION IDENTIFICATION NUMBER

BEG. DATE = THE DATE SAMPLING WAS STARTED
 BEG. TIME = THE TIME SAMPLING WAS STARTED
 END. DATE = THE DATE SAMPLING WAS ENDED
 END. TIME = THE TIME SAMPLING WAS STOPPED

A = RESERVED

B = RESERVED

PES = PESTICIDES BY CONTRACT

= DIOXINS/FURANS BY EPA

E = EXPLOSIVES BY CONTRACT

FLD = FIELD MEASUREMENTS BY EPA

G = MINERALS & DISSOLVED MATERIALS BY EPA

HER = HERBICIDES BY EPA

I = ION CHROMATOGRAPHY ANALYSES BY EPA

MC = METALS BY CONTRACT

BNC = BASE NEUTRALS BY CONTRACT

L = FISH PHYSICAL DATA BY EPA

MET = METALS BY EPA

N = FISH TISSUE PARAMETERS BY EPA

VC = VOLATILES BY CONTRACT

P = PESTICIDES BY EPA

Q = FLASH POINT ANALYSES BY EPA

R = RESERVED

BN = SEMIVOLATILE BY EPA

T = CYANIDE PHENOL BY EPA

U = RESERVED

VOA = VOLATILE ORGANICS BY EPA

HC = HERBICIDES BY CONTRACT

X = RESERVED

Y = RESERVED

TRK = ACTIVITY TRACKING PARAMETERS BY EPA

STORET DETECTION IDENTIFIERS

BLANK = NO REMARKS

J = DATA REPORTED BUT NOT VALID BY APPROVED QC PROCEDURES

I = INVALID SAMPLE/DATA - VALUE NOT REPORTED

U = LESS THAN (MEASUREMENT DETECTION LIMIT)

M = DETECTED BUT BELOW THE LEVEL FOR ACCURATE QUANTIFICATION

O = PARAMETER NOT ANALYZED

CONTRACTOR/ IN HOUSE / FIELD MEDIA GROUPS

FIELD = * * * = AF, HF, SF, TF, WF, ZZ

CONTRACTOR = * * = HA, HC, HJ, HK, HO, SC, SJ, SK, SO, SW, TC, TJ,

TK, TO, TW, WA, WC, WE, WJ, WK, WO, WW

IN HOUSE = * = ALL OTHERS

QUALITY CONTROL AUDIT CODES

A = TRUE VALUE FOR CALIBRATION STANDARD

B = CONCENTRATION RESULTING FROM DUPLICATE LAB SPIKE

C = MEASURED VALUE FOR CALIBRATION STANDARD

D = MEASURED VALUE FOR FIELD DUPLICATE

F = MEASURED VALUE FOR FIELD BLANK

G = MEASURED VALUE FOR METHOD STANDARD

H = TRUE VALUE FOR METHOD STANDARD

K = CONCENTRATION RESULTING FROM DUPLICATE FIELD SPIKE

L = MEASURED VALUE FOR LAB DUPLICATE

M = MEASURED VALUE FOR LAB BLANK

N = MEASURED VALUE FOR DUPLICATE FIELD SPIKE

P = MEASURED VALUE FOR PERFORMANCE STANDARD

R = CONCENTRATION RESULTING FROM LAB SPIKE

S = MEASURED VALUE FOR LAB SPIKE

T = TRUE VALUE OF PERFORMANCE STANDARD

W = MEASURED VALUE FOR DUPLICATE LAB SPIKE

Y = MEASURED VALUE FOR FIELD SPIKE

Z = CONCENTRATION RESULTING FROM FIELD SPIKE

MEDIA CODES

A = AIR

T = BIOLOGICAL (PLANT & ANIMAL) TISSUE

H = HAZARDOUS MATERIALS/MAN MADE PRODUCTS

S = SEDIMENT, SLUDGE & SOIL

W = WATER

UNITS

NA = NOT APPLICABLE

PG = PICOGRAMS (1 X 10⁻¹² GRAMS)

NG = NANOGRAMS (1 X 10⁻⁹ GRAMS)

UG = MICROGRAMS (1 X 10⁻⁶ GRAMS)

MG = MILLIGRAMS (1 X 10⁻³ GRAMS)

M3 = METER CUBED

MPH = MILES PER HOUR

SCM = STANDARD (1 ATM, 25 C) CUBIC METER

KG = KILOGRAM

L = LITER

C = CENTIGRADE DEGREES

SU = STANDARD (PH) UNITS

= NUMBER

LB = POUNDS

IN = INCHES

M/F = MALE/FEMALE

M2 = SQUARE METER

I.D. = SPECIES IDENTIFICATION

GPM = GALLONS PER MINUTE

CFS = CUBIC FEET PER SECOND

MGD = MILLION GALLONS PER DAY

1000G = FLOW, 1000 GALLONS PER COMPOSITE

UMHOS = CONDUCTIVITY UNITS (1/OHMS)

NTU = TURBIDITY UNITS

PC/L = PICO (1 X 10⁻¹²) CURRIES PER LITER

MV = MILLIVOLT

SQ FT = SQUARE FEET

P/CM2 = PICOGRAMS PER SQ. CENTIMETER

U/CM2 = MICROGRAMS PER SQ. CENTIMETER

ANALYSIS REQUEST DETAIL REPORT

ACTIVITY: 1-AKX01

PRELIMINARY DATA
SUBJECT TO REVISION

COMPOUND		UNITS	001	001B	001L	001R	001S	001W
SG06 GCMS SCAN		UG/KG	ATTACHMENT					
SM01 SILVER	BY ICAP	MG/KG	0.2 U	NA 0	0.2 U	NA 0	0.2 U	0.2 U
SM02 ALUMINUM	BY ICAP	MG/KG	10400	10000	10100	10000	25200	25300
SM03 ARSENIC	BY ICAP	MG/KG	5.3	27.4	4.9	27.4	32	36
SM04 BARIUM	BY ICAP	MG/KG	180	120	170	120	320	310
SM05 BERYLLIUM	BY ICAP	MG/KG	0.54	20	0.51	20	19	20
SM06 CADMIUM	BY ICAP	MG/KG	1.5	18.7	1.5	18.7	18	19
SM07 COBALT	BY ICAP	MG/KG	6.4	20	6.1	20	23	25
SM08 CHROMIUM	BY ICAP	MG/KG	15	22.4	18	22.4	34	35
SM09 COPPER	BY ICAP	MG/KG	26	22.0	25	22.0	48	48
SM10 IRON	BY ICAP	MG/KG	16500	40000	16500	40000	62700	64600
SM11 MANGANESE	BY ICAP	MG/KG	610	496	570	496	960	960
SM12 MOLYBDENUM	BY ICAP	MG/KG	NA 0	NA 0	NA 0	NA 0	NA 0	NA 0
SM13 NICKEL	BY ICAP	MG/KG	16	22.4	15	22.4	33	35
SM14 LEAD	BY ICAP	MG/KG	84	120	96	120	170	180
SM15 ANTIMONY	BY ICAP	MG/KG	2.7 U	24.0	2.7 U	24.0	8.9	10
SM16 SELENIUM	BY ICAP	MG/KG	1.1 U	20	1.0 U	20	18	21
SM17 TITANIUM	BY ICAP	MG/KG	NA 0	NA 0	NA 0	NA 0	NA 0	NA 0
SM18 THALLIUM	BY ICAP	MG/KG	10 U	NA 0	10 U	NA 0	10 U	10 U
SM19 VANADIUM	BY ICAP	MG/KG	18	17.6	17	17.6	39	40
SM20 ZINC	BY ICAP	MG/KG	150	420	150	420	590	590
SM21 CALCIUM	BY ICAP	MG/KG	83700	NA 0	93400	NA 0	99000	76200
SM22 MAGNESIUM	BY ICAP	MG/KG	3000	NA 0	3100	NA 0	4000	3400
SM23 SODIUM	BY ICAP	MG/KG	150	NA 0	150	NA 0	200	200
SM24 POTASSIUM	BY ICAP	MG/KG	1200	NA 0	1100	NA 0	1700	1500
SP17 PCB-1016		UG/KG	20 U					

ANALYSIS REQUEST DETAIL REPORT

ACTIVITY: 1-AKX01

PRELIMINARY DATA
SUBJECT TO REVISION

COMPOUND	UNITS	001	001B	001L	001R	001S	001W
SP18 PCB-1221	UG/KG: 80	U					
SP19 PCB-1232	UG/KG: 80	U					
SP20 PCB-1242	UG/KG: 80	U					
SP21 PCB-1248	UG/KG: 80	U					
SP22 PCB-1254	UG/KG: 160	U					
SP23 PCB-1260	UG/KG: 160	U					
SV03 CHLOROMETHANE	UG/KG: 10	U					
SV04 BROMOMETHANE	UG/KG: 20	U					
SV05 VINYL CHLORIDE	UG/KG: 15	U					
SV06 CHLOROETHANE	UG/KG: 15	U					
SV07 METHYLENE CHLORIDE	UG/KG: 36	U					
SV08 1,1-DICHLOROETHYLENE	UG/KG: 5	U					
SV09 1,1-DICHLOROETHANE	UG/KG: 5	U					
SV10 TRANS-1,2-DICHLOROETHYLENE	UG/KG: 5	U					
SV11 CHLOROFORM	UG/KG: 5	U					
SV12 1,2-DICHLOROETHANE	UG/KG: 5	U					
SV13 1,1,1-TRICHLOROETHANE	UG/KG: 5	U					
SV14 CARBON TETRACHLORIDE	UG/KG: 5	U					
SV15 BROMODICHLOROMETHANE	UG/KG: 5	U					
SV16 1,2-DICHLOROPROPANE	UG/KG: 5	U					
SV17 BENZENE	UG/KG: 5	U					
SV18 TRANS-1,3-DICHLOROPROPENE	UG/KG: 5	U					
SV19 TRICHLOROETHYLENE	UG/KG: 5	U					
SV20 CIS-1,3-DICHLOROPROPENE	UG/KG: 5	U					
SV21 DIBROMOCHLOROMETHANE	UG/KG: 5	U					
SV22 1,1,2-TRICHLOROETHANE	UG/KG: 5	U					

ANALYSIS REQUEST DETAIL REPORT

ACTIVITY: 1-AKX01

PRELIMINARY DATA
SUBJECT TO REVISION

COMPOUND	UNITS	001	001B	001L	001R	001S	001W
SV24 BROMOFORM	UG/KG	5 U					
SV25 1,1,1,2,2-TETRACHLOROETHENE	UG/KG	5 U					
SV26 TOLUENE	UG/KG	7.6 J					
SV27 1,1,1,2,2-TETRACHLOROETHANE	UG/KG	5 U					
SV28 CHLOROBENZENE	UG/KG	5 U					
SV29 ETHYL BENZENE	UG/KG	10 J					
SV30 ACETONE	UG/KG	65 U					
SV31 CARBON DISULFIDE	UG/KG	5 U					
SV32 2-BUTANONE	UG/KG	10 U					
SV33 VINYL ACETATE	UG/KG	10 U					
SV34 2-HEXANONE	UG/KG	10 U					
SV35 4-METHYL-2-PENTANONE	UG/KG	12 U					
SV36 STYRENE	UG/KG	5 U					
SV37 XYLENES, TOTAL	UG/KG	220					
ZZ01 SAMPLE NUMBER	NA	001	001	001	001	001	001
ZZ02 ACTIVITY CODE	NA	AKX01	AKX01	AKX01	AKX01	AKX01	AKX01

ANALYSIS REQUEST DETAIL REPORT

ACTIVITY: 1-AKX01

PRELIMINARY DATA
SUBJECT TO REVISION

COMPOUND		UNITS	002	003	004	005	900P	900T
SG06 GCMS SCAN		UG/KG: ATTACHMENT	ATTACHMENT	ATTACHMENT	ATTACHMENT	ATTACHMENT		
SM01 SILVER	BY ICAP	MG/KG: 0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	22	22.2
SM02 ALUMINUM	BY ICAP	MG/KG: 8000	5200	12000	10800	310	325	
SM03 ARSENIC	BY ICAP	MG/KG: 4.5	1.7	5.9	5.1	910	917	
SM04 BARIUM	BY ICAP	MG/KG: 110	66	200	160	5.6	4.8	
SM05 BERYLLIUM	BY ICAP	MG/KG: 0.36	0.21	0.66	0.51	18	19.4	
SM06 CADMIUM	BY ICAP	MG/KG: 1.4	0.93	1.6	2.1	39	45.4	
SM07 COBALT	BY ICAP	MG/KG: 4.0	2.3	7.5	6.5	130	144	
SM08 CHROMIUM	BY ICAP	MG/KG: 20	7.3	16	17	90	99.6	
SM09 COPPER	BY ICAP	MG/KG: 32	16	49	35	6700	6910	
SM10 IRON	BY ICAP	MG/KG: 14500	9100	17900	24400	23300	22430	
SM11 MANGANESE	BY ICAP	MG/KG: 610	300	610	420	190	208	
SM12 MOLYBDENUM	BY ICAP	MG/KG: NA 0	NA 0	NA 0	NA 0	NA 0	NA 0	
SM13 NICKEL	BY ICAP	MG/KG: 12	6.8	19	15	49	60.9	
SM14 LEAD	BY ICAP	MG/KG: 44	27	71	150	210	236	
SM15 ANTIMONY	BY ICAP	MG/KG: 2.7 U	2.7 U	2.7 U	2.7 U	260	211	
SM16 SELENIUM	BY ICAP	MG/KG: 1.1 U	1.1 U	1.1 U	1.1 U	41	39.2	
SM17 TITANIUM	BY ICAP	MG/KG: NA 0	NA 0	NA 0	NA 0	NA 0	NA 0	
SM18 THALLIUM	BY ICAP	MG/KG: 10 U	10 U	10 U	10 U	42	39	
SM19 VANADIUM	BY ICAP	MG/KG: 14	8.8	22	19	62	65.8	
SM20 ZINC	BY ICAP	MG/KG: 110	69	140	310	140	187	
SM21 CALCIUM	BY ICAP	MG/KG: 163000	224000	43600	85300	183000	196200	
SM22 MAGNESIUM	BY ICAP	MG/KG: 3000	3100	2300	3000	110000	118100	
SM23 SODIUM	BY ICAP	MG/KG: 160	160	98	240	1900	50	
SM24 POTASSIUM	BY ICAP	MG/KG: 1000	680	1700	1300	80	50	
SP17 PCB-1016		UG/KG: 80 U	80 U	80 U	80 U			

ANALYSIS REQUEST DETAIL REPORT

ACTIVITY: 1-AKX01

PRELIMINARY DATA
SUBJECT TO REVISION

COMPOUND	UNITS	002	003	004	005	900P	900T
SP18 PCB-1221	UG/KG	80 U	80 U	80 U	80 U		
SP19 PCB-1232	UG/KG	80 U	80 U	80 U	80 U		
SP20 PCB-1242	UG/KG	80 U	80 U	80 U	80 U		
SP21 PCB-1248	UG/KG	80 U	80 U	80 U	80 U		
SP22 PCB-1254	UG/KG	160 U	160 U	160 U	160 U		
SP23 PCB-1260	UG/KG	160 U	160 U	160 U	160 U		
SV03 CHLOROMETHANE	UG/KG	10 U	1200 U	10 U	2500 U		
SV04 BROMOMETHANE	UG/KG	20 U	2400 U	20 U	5000 U		
SV05 VINYL CHLORIDE	UG/KG	15 U	1800 U	15 U	3700 U		
SV06 CHLOROETHANE	UG/KG	15 U	1800 U	15 U	3700 U		
SV07 METHYLENE CHLORIDE	UG/KG	10 U	1200 U	20 U	5100 U		
SV08 1,1-DICHLOROETHYLENE	UG/KG	5 U	600 U	5 U	1200 U		
SV09 1,1-DICHLOROETHANE	UG/KG	5 U	600 U	5 U	1200 U		
SV10 TRANS-1,2-DICHLOROETHYLENE	UG/KG	5 U	600 U	5 U	1200 U		
SV11 CHLOROFORM	UG/KG	5 U	600 U	5 U	1200 U		
SV12 1,2-DICHLOROETHANE	UG/KG	5 U	600 U	5 U	1200 U		
SV13 1,1,1-TRICHLOROETHANE	UG/KG	5 U	600 U	5 U	1200 U		
SV14 CARBON TETRACHLORIDE	UG/KG	5 U	600 U	5 U	1200 U		
SV15 BROMODICHLOROMETHANE	UG/KG	5 U	600 U	5 U	1200 U		
SV16 1,2-DICHLOROPROPANE	UG/KG	5 U	600 U	5 U	1200 U		
SV17 BENZENE	UG/KG	5 U	600 U	5 U	1200 U		
SV18 TRANS-1,3-DICHLOROPROPENE	UG/KG	5 U	600 U	5 U	1200 U		
SV19 TRICHLOROETHYLENE	UG/KG	5 U	600 U	5 U	1200 U		
SV20 CIS-1,3-DICHLOROPROPENE	UG/KG	5 U	600 U	5 U	1200 U		
SV21 DIBROMOCHLOROMETHANE	UG/KG	5 U	600 U	5 U	1200 U		
SV22 1,1,2-TRICHLOROETHANE	UG/KG	5 U	600 U	5 U	1200 U		

ANALYSIS REQUEST DETAIL REPORT

ACTIVITY: 1-AKX01

PRELIMINARY DATA
SUBJECT TO REVISION

COMPOUND	UNITS	002	003	004	005	900P	900T	
SV24 BROMOFORM	UG/KG: 5	U	600	U	5	U	1200	U
SV25 1,1,2,2-TETRACHLOROETHENE	UG/KG: 5	U	600	U	5	U	1200	U
SV26 TOLUENE	UG/KG: 5	U	1200		5	U	3700	
SV27 1,1,2,2-TETRACHLOROETHANE	UG/KG: 5	U	600	U	5	U	1200	U
SV28 CHLOROBENZENE	UG/KG: 5	U	600	U	5	U	1200	U
SV29 ETHYL BENZENE	UG/KG: 37		1300		5	U	3100	
SV30 ACETONE	UG/KG: 15	U	2200	U	49	U	3600	U
SV31 CARBON DISULFIDE	UG/KG: 5	U	600	U	5	U	1200	U
SV32 2-BUTANONE	UG/KG: 10	U	18000	U	10	U	12000	U
SV33 VINYL ACETATE	UG/KG: 10	U	1200	U	10	U	2500	U
SV34 2-HEXANONE	UG/KG: 10	U	1200	U	10	U	2500	U
SV35 4-METHYL-2-PENTANONE	UG/KG: 10	U	1200	U	10	U	2500	U
SV36 STYRENE	UG/KG: 5	U	600	U	5	U	1200	U
SV37 XYLENES, TOTAL	UG/KG: 360		14000		5	U	32000	
ZZ01 SAMPLE NUMBER	NA	002	003	004	005	900	900	
ZZ02 ACTIVITY CODE	NA	AKX01	AKX01	AKX01	AKX01	AKX01	AKX01	

ANALYSIS REQUEST DETAIL REPORT

ACTIVITY: 1-AKX01

PRELIMINARY DATA
SUBJECT TO REVISION

COMPOUND		UNITS	901G	901H	902M			
SM01 SILVER	BY ICAP	MG/KG	0.2 U	NA	0	0.2	U	
SM02 ALUMINUM	BY ICAP	MG/KG	10400	10000		2.0	U	
SM03 ARSENIC	BY ICAP	MG/KG	30	27.4		0.1	U	
SM04 BARIUM	BY ICAP	MG/KG	120	120		0.1	U	
SM05 BERYLLIUM	BY ICAP	MG/KG	21	20		0.1	U	
SM06 CADMIUM	BY ICAP	MG/KG	19	18.7		0.1	U	
SM07 COBALT	BY ICAP	MG/KG	21	20		0.2	U	
SM08 CHROMIUM	BY ICAP	MG/KG	22	22.4		0.2	U	
SM09 COPPER	BY ICAP	MG/KG	22	22.0		0.2	U	
SM10 IRON	BY ICAP	MG/KG	38000	40000		2.9		
SM11 MANGANESE	BY ICAP	MG/KG	490	496		0.1	U	
SM12 MOLYBDENUM	BY ICAP	MG/KG	NA	0	NA	0	NA	0
SM13 NICKEL	BY ICAP	MG/KG	22	22.4		0.4	U	
SM14 LEAD	BY ICAP	MG/KG	120	120		1.0	U	
SM15 ANTIMONY	BY ICAP	MG/KG	19	24.0		2.7	U	
SM16 SELENIUM	BY ICAP	MG/KG	23	20		0.1	U	
SM17 TITANIUM	BY ICAP	MG/KG	NA	0	NA	0	NA	0
SM18 THALLIUM	BY ICAP	MG/KG	10	U	NA	0	10	U
SM19 VANADIUM	BY ICAP	MG/KG	18	17.6		0.2	U	
SM20 ZINC	BY ICAP	MG/KG	420	420		0.4	U	
SM21 CALCIUM	BY ICAP	MG/KG	40	U	NA	0	40	U
SM22 MAGNESIUM	BY ICAP	MG/KG	40	U	NA	0	40	U
SM23 SODIUM	BY ICAP	MG/KG	40	U	NA	0	40	U
SM24 POTASSIUM	BY ICAP	MG/KG	40	U	NA	0	40	U
ZZ01 SAMPLE NUMBER		NA	901	901		902		
ZZ02 ACTIVITY CODE		NA	AKX01	AKX01		AKX01		

GROUP ANALYSIS SUMMARY

PRELIMINARY DATA
SUBJECT TO REVISION

SAMPLE:	A	B	PES	D	E	FLD	G	HER	I	MC	BNC	L	MET	N	VC	PES	Q	R	BN	T	U	VOA	HC	X	Y	TRK	COMMENTS
001	0	0	0	0	0	0	1	0	0	0	0	0	24	0	0	7	0	0	0	0	0	34	0	0	0	2	
001 B:	00	00	00	00	00	00	00	00	00	00	00	00	24	00	00	00	00	00	00	00	00	00	00	00	00	22	
001 L:	00	00	00	00	00	00	00	00	00	00	00	00	24	00	00	00	00	00	00	00	00	00	00	00	00	22	
001 R:	00	00	00	00	00	00	00	00	00	00	00	00	24	00	00	00	00	00	00	00	00	00	00	00	00	22	
001 S:	00	00	00	00	00	00	00	00	00	00	00	00	24	00	00	00	00	00	00	00	00	00	00	00	00	22	
001 W:	00	00	00	00	00	00	00	00	00	00	00	00	24	00	00	00	00	00	00	00	00	00	00	00	00	22	
002	00	00	00	00	00	00	1	00	00	00	00	00	24	00	00	7	00	00	00	00	00	00	00	00	00	22	
003	00	00	00	00	00	00	1	00	00	00	00	00	24	00	00	7	00	00	00	00	00	34	00	00	00	22	
004	00	00	00	00	00	00	1	00	00	00	00	00	24	00	00	7	00	00	00	00	00	34	00	00	00	22	
005	00	00	00	00	00	00	1	00	00	00	00	00	24	00	00	7	00	00	00	00	00	34	00	00	00	22	
900 P:	00	00	00	00	00	00	0	00	00	00	00	00	24	00	00	7	00	00	00	00	00	34	00	00	00	22	
900 T:	00	00	00	00	00	00	0	00	00	00	00	00	24	00	00	0	00	00	00	00	00	0	00	00	00	22	
901 G:	00	00	00	00	00	00	0	00	00	00	00	00	24	00	00	0	00	00	00	00	00	0	00	00	00	22	
901 H:	00	00	00	00	00	00	0	00	00	00	00	00	24	00	00	0	00	00	00	00	00	0	00	00	00	22	
902 M:	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	2	
DETERMI- NATIONS	0	0	0	0	0	0	5	0	0	0	0	0	360	0	0	35	0	0	0	0	0	170	0	0	0	30	
ANALYSES:	0	0	0	0	0	0	5	0	0	0	0	0	15	0	0	5	0	0	0	0	0	5	0	0	0	15	

PRELIMINARY DATA
SUBJECT TO REVISION

ACTIVITY AKX01 INDUSTRIAL SERVICE CORP(ISC)

THE PROJECT LEADER SHOULD CIRCLE ONE - STORET, SAROAD, OR ARCHIVE.

CIRCLE ONE: STORET SAROAD ARCHIVE

DATA APPROVED BY LABO FOR TRANSMISSION TO PROJECT LEADER ON 11/15/90 12:01.23 BY

R. Brownall *for*

TENTATIVELY IDENTIFIED COMPOUNDS

TITLE: IND. SERVICES - AKX01

LAB: ESAT

ANALYST/ENTRY: JKM

REVIEW LEVEL: 2 *JKM*

MATRIX: SEDIMENT

METHOD: 5411S70

REVIEWER: _____

DATA FILE : AKX

UNITS: UG/KG

CASE: N/A

DATE: 10/31/9

SAMPLE NO.	COMPOUND NAME	FRACTION	EST. CONCENTRATION
AKX01002	AROMATIC HYDROCARBON	VOA	30 J
AKX01002B 001 <i>JKM</i>	NOTHING SIGNIFICANT FOUND	VOA	
AKX01003	UNKNOWN ALIPHATIC HYDROCARBON	VOA	6 J
AKX01004	NOTHING SIGNIFICANT FOUND	VOA	
AKX01005	UNKNOWN ALIPHATIC HYDROCARBON	VOA	7 J

- * THIS IS A CRUDE ESTIMATION BASED ON RESPONSE RELATIVE TO AN INTERNAL STANDARD. AN AUTHENTIC STANDARD HAS NOT BEEN RUN.
- ** THE COMPOUNDS WERE IDENTIFIED USING A LIBRARY SEARCH ROUTINE. AUTHENTIC STANDARDS HAVE NOT BEEN ANALYZED TO VERIFY COMPOUND MASS SPECTRA AND RETENTION TIMES.

TENTATIVELY IDENTIFIED COMPOUNDS

TITLE: INDUSTRIAL SERVICES
 LAB: EPA RGN VII ESAT
 ANALYST/ENTRY: MTW *AW*
 REVIEW LEVEL: *8*

MATRIX: SEDIMENT
 METHOD: 625S
 REVIEWER: _____
 DATA FILE : M42

UNITS: PERCENT
 CASE: AKX01
 DATE: 11/01/9

SAMPLE NO.	COMPOUND NAME	FRACTION	EST. CONCENTRATION
AKX01001	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J
AKX01002	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J
AKX01003	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J
AKX01004	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J
AKX01005	ALIPHATIC AND AROMATIC HYDROCARBONS	BNA	5-30 J

- * THIS IS A CRUDE ESTIMATION BASED ON RESPONSE RELATIVE TO AN INTERNAL STANDARD. AN AUTHENTIC STANDARD HAS NOT BEEN RUN.
- ** THE COMPOUNDS WERE IDENTIFIED USING A LIBRARY SEARCH ROUTINE. AUTHENTIC STANDARDS HAVE NOT BEEN ANALYZED TO VERIFY COMPOUND MASS SPECTRA AND RETENTION TIMES.

APPENDIX C

INDUSTRIAL SERVICES CORPORATION INVESTIGATION
SITE PHOTOGRAPHS



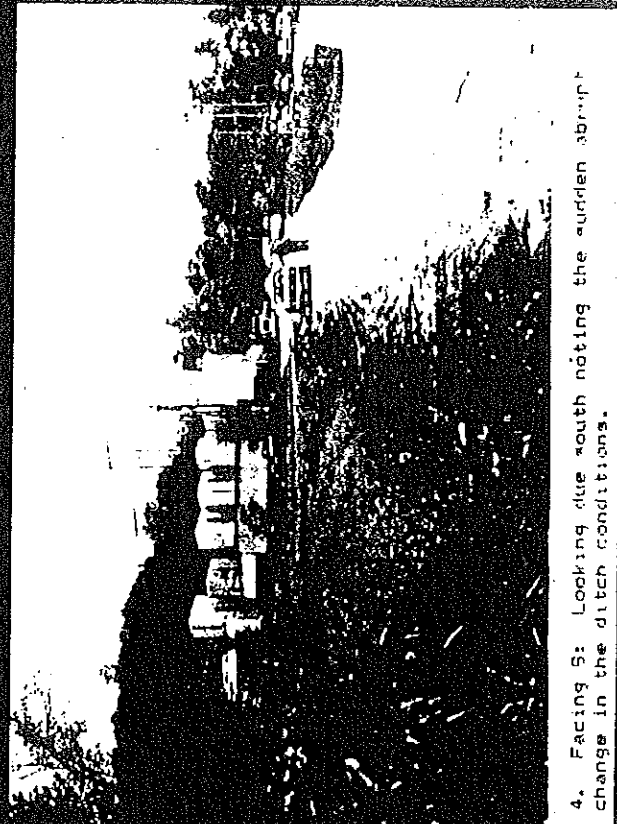
1. Facing N: Drainage ditch off east side of Marsh Street. Note the recent indications of roadside grading work, on vegetation and tire tracks.



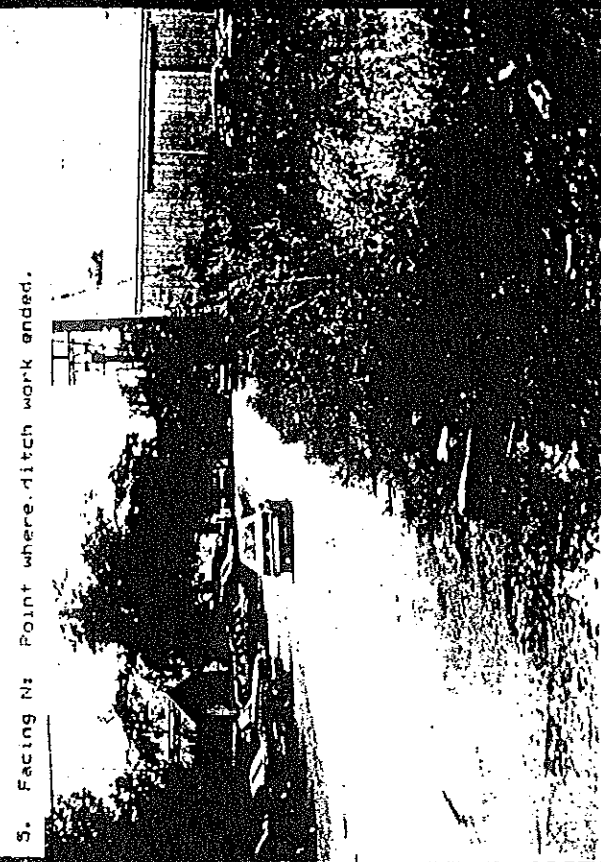
2. Facing E: Drainage ditch leading from 15th - northernmost above ground storage tank area. Note recent ditch grading work and stained soil near the tree.



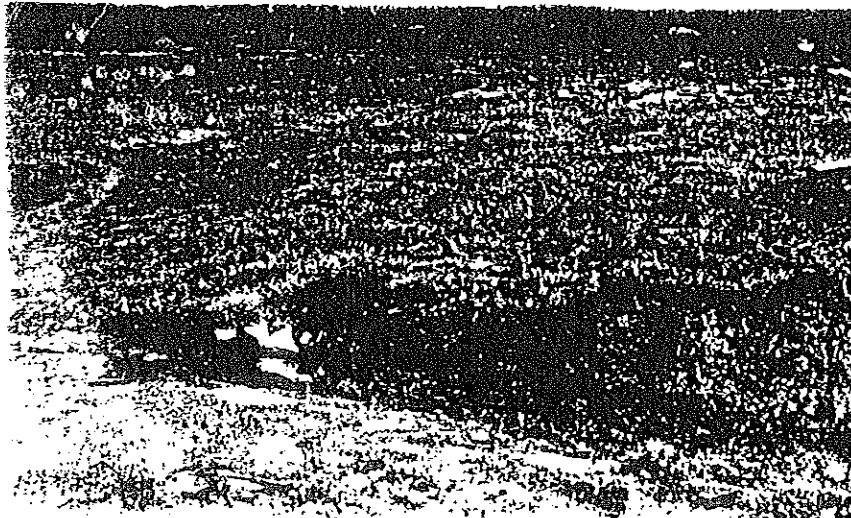
3. Facing SSE: Drainage ditch with ISC facility in background.



4. Facing S: Looking due south noting the sudden abrupt change in the ditch conditions.



5. Facing N: Point where ditch work ended.



6. Facing NNE: Drainage ditch culvert @ 50-foot north of where drainage bonds east from ISC north storage tank area. Note the dark stained patches of soil and vegetation.



8. Facing SSE: Sample point #002 taken near downstream end of drainage ditch culvert approximately 25-foot north of where sample #001 taken.



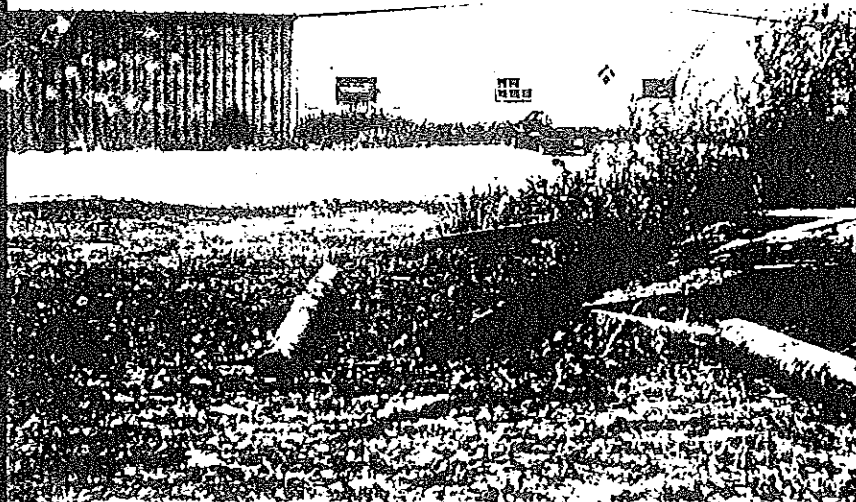
7. Facing ENE: Technical Assistance Team (TAT) collecting soil sample #001 near mouth of drainage ditch culvert.



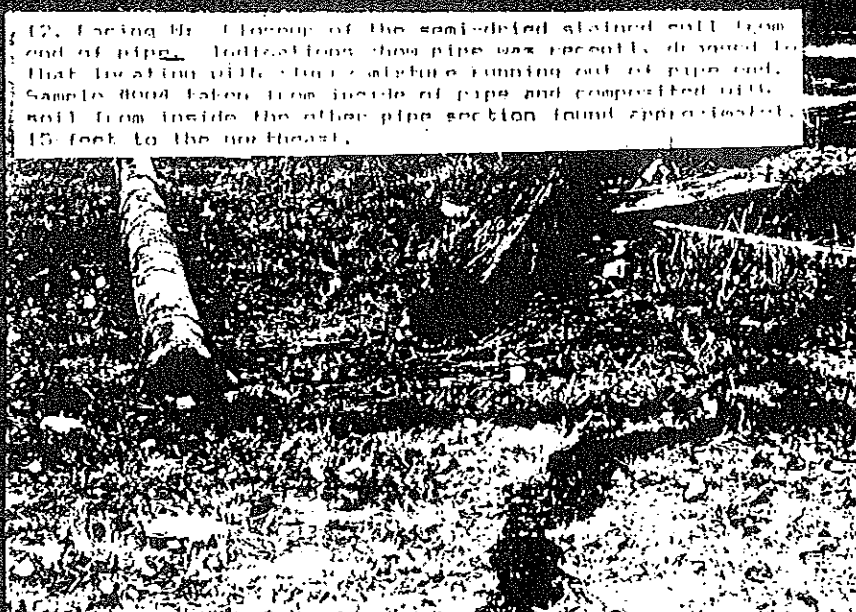
9. Facing SE: Sample point #003 approximately 150-foot north of culvert. Soil sample taken near the dark stained spot.



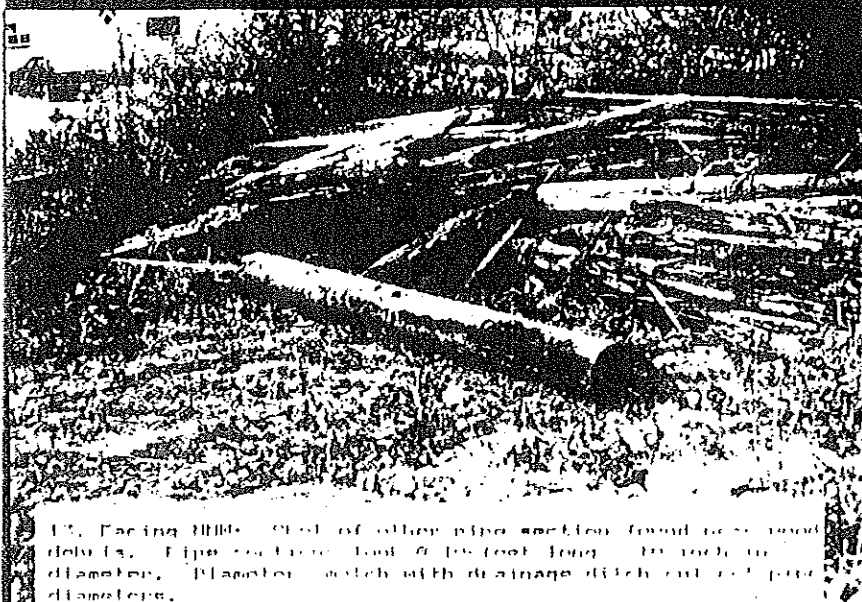
10. Facing N: TAT taking soil sample #003.



11. Facing W. Looking towards Marsh Street. Large pile of wood debris found approximately 100-feet east of sample point #603. Note the pipe sections with dried stained soil.



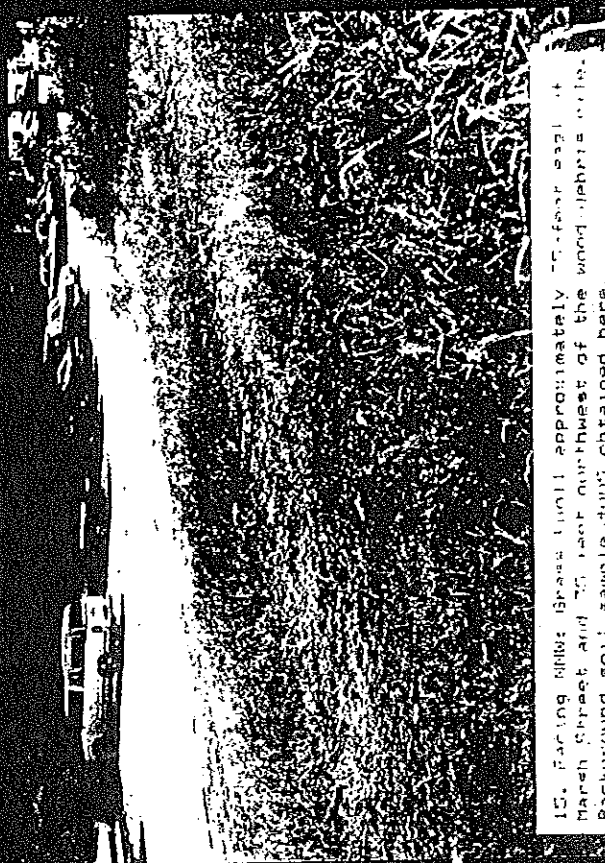
12. Facing W. Closeup of the semi-dried stained soil from end of pipe. Indications show pipe was recently moved to that location with short distance running out of pipe end. Sample found taken from inside of pipe and composed of soil from inside the other pipe section found approximately 15 feet to the northeast.



13. Facing NNE. One of other pipe sections found near wood debris. Pipe section about 9 to 10 feet long. 10 inch in diameter. Plaster match with drainage ditch cut at pipe diameter.



14. Facing W. Closeup of pipe section indicating recent removal of soil and pipe section by the pipe.



15. Facing NNE. Green soil approximately 75 feet east of Marsh Street and 75 feet northeast of the wood debris pile. Background soil sample found obtained here.

Laboratory Duplicates

The sample and spike duplicate precision for total metals met Region VII guidelines.

LCS

A laboratory control sample was analyzed along with the samples. Results for the LCS met Region VII guidelines for total metals.

Blanks

The method blank which was analyzed with the samples showed slight Iron contamination. Since the lowest sample concentration was greater than 3000 times the blank contamination, this data may be deemed acceptable and no blank correction was performed.

Discussion

The low spike/spike duplicate recoveries for Antimony were probably due a matrix effect since the method standard and LCS were within limits. The detection limit was therefore raised for Antimony to 2.7 mg/kg to correct for matrix recovery.

Arsenic and Selenium were analysed by Graphite Furnace for all samples and QC. A 1:10 dilution for the the samples and a 1:100 dilution for the QC was performed before analysis of these two analytes.

Calcium, Iron and Aluminum for all samples were diluted 1:100 before analysis. Magnesium and Potassium for all samples required a 1:10 dilution before analysis. Other analytes were diluted 1:10 when necessary to insure ICAP linearity.

Silver, Thallium, Calcium, Magnesium, Sodium, and Potassium were not included in the spike or method standard due to the fact that the spiking solution that contained these analytes* was not available at the time of digestion. The spiking solutions used were analysed along with the samples and the values obtained were used in calculation of spike/spike duplicate and method standard recoveries.

Conclusion

This assignment is now complete and data sheets for the analysis are attached. If you have any questions or comments, please contact me at 236-3881 between 7:30 A.M. and 4:00 P.M.